

# Energy Efficiency for Restaurant Management

Restaurant owners and managers face high-energy requirements for operating ranges, ovens and food preparation equipment, dishwashing, heating, cooling and lighting. Opportunities exist to decrease energy consumption and realize cost savings in all of these areas. In addition, improving energy efficiency can increase staff and patron comfort and lower maintenance costs.

Typically, energy efficiency can be achieved through three types of measures: simple behavioral changes, regular operations and maintenance of energy-using systems, and capital expenditure in energy efficiency projects. These measures can result in significant energy savings, and large-scale projects can often be paid for with the savings from less costly initiatives.

Following are recommended energy efficiency measures that can benefit restaurant managers.

## Behavioral Change

The easiest and most inexpensive way to reduce energy costs is behavioral change. Behavioural measures require no capital outlay and can return energy savings of up to 10 per cent. Power Smart actions include:

- Turn off cooking equipment when not in use.
- Turn off fan hoods during unoccupied hours.
- Turn off all non-essential indoor lights at the end of the night.
- Use the microwave instead of the conventional oven when possible.

- Keep the freezer door closed.
- Use cold water when possible.
- Educate staff on energy efficiency procedures – both “why” and “how.”

## Operations and Maintenance

To prevent excessive energy and repair costs, it is important to perform routine operations and maintenance on energy-using systems. Key measures include:

- Perform routine operations and maintenance on:
  - the kitchen exhaust system,
  - cooking and refrigeration equipment, and
  - the HVAC system.
- Ensure that kitchen exhaust hood fans and the make-up air unit shut down as soon as cooking and dishwashing are over.

## Capital Expenditures

Capital expenditures offer long-term energy efficiency solutions. Although large-scale projects require more planning and resources to implement, they can provide energy savings of up to 30 per cent, and the ongoing benefits justify the initial costs. Suggested capital projects include:

- Retrofit the indoor lighting system:
  - Replace all incandescent lamps with compact fluorescent lamps.
  - Use energy-efficient decorative spotlights.

(see over)

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- Replace all exterior mercury vapor or incandescent lights with metal halide lamps.
- Replace older, less efficient equipment, such as dishwashers and kitchen exhaust hoods, with more efficient models.
- Replace older, inefficient HVAC equipment with more efficient models.
- Install variable speed drives for fan hood motors.
- Install liquid pressure amplifiers on large coolers and freezers.
- Install a hot water booster for dishwashers.
- If kitchen and common area ventilation units are not shut down at night, install timers to reduce the hours of operation when the space is not in use.
- Recommission all building systems to ensure that they are operating at optimum levels.

## Contact Us

For more information on how Power Smart can energize your bottom line, call us today at 604 453-6400 in the Lower Mainland, 1 866 453-6400 elsewhere, or visit our web site at [www.bchydro.com/business](http://www.bchydro.com/business).